

Be the Bee

Communicate the Location of a Flower with a Dance

The Honeybee Queen is the mother to an entire hive. Worker bees are sent out to collect nectar and pollen, a bee's food source, and bring it back to the hive. They communicate where the best flowers are through dance. In this activity, you will have a chance to communicate where a flower is using a dance.

Activity Challenge

Communicate the location of a hidden flower with a dance and have someone else search for it.

Preparation

1. Gather a flower and decide on a hiding spot.
2. Note the position of the sun in the sky in relationship to your hiding spot.
3. Assign a hive location, a queen bee, and a worker bee (feel free to change roles after completing the challenge once).

To Do

1. Choose a body motion to represent distance, another motion to represent direction.
2. Choose a way to represent a greater or lesser distance from the hive.
3. Choose a way to indicate where the flower is hidden based on the locations of the hive, the sun, and the flower.
4. Without speaking, perform the dance to another "worker bee".
5. Attempt to find the flower that the first "worker bee" danced about.

Observations

Draw and label a map of the location of the hive, the flower, and the position of the sun. Discuss and write several sentences about how it felt to communicate the location of something without using words from the perspectives of a dancer and of a flower finder based on your role.

Extensions

- Make a music video that highlights your bee dance.
- Film the dance and search for the flower and share it with RAFT at raft@raft.net.
- Create a different non-verbal way of communicating to find something.

The Science behind the Activity

The Western Honeybee, (*Apis mellifera*), is known for its delicious food production, honey! Worker bees fly from their hive searching for nectar and pollen, which they make into food. When a bee finds a flower that has a lot of nectar, they insert their long tongue into the flower and suck it into one of their two stomachs. They also collect pollen, which they store in a pollen basket on their hind legs. As they fly from flower to flower they will unintentionally pollenate the flowers to enable the plants to make seeds. If they find many flowers the worker bees will fly back to the hive and communicate to the other worker bees where the flowers are by performing a **waggle dance**.

Materials Needed

- o STEAM Journal or paper to record observations on
- o Pen
- o Crayons, markers, or colored pencils
- o A Flower

Grade Range

K-2
6-8

Topics/Skills

Science: Waggle Dance, Pollination, Animal Communication

Learning Standards

NGSS: 2-LS2-2
[MS-LS1-4](#)

Duration

25-30 minutes

Prep Time

10 minutes